

CLAIMS

What is claimed is:

- 5        1.     A floating surgical cannula.
2.     The surgical cannula according to claim 1, wherein said surgical cannula is expandable.
3.     The surgical cannula according to claim 2, wherein said surgical cannula can expand to 20mm.
- 10       4.     The surgical cannula according to claim 1, wherein said surgical cannula is disposable.
5.     The surgical cannula according to claim 1, wherein said surgical cannula is made of expandable material having memory.
6.     The surgical cannula according to claim 4, wherein said material is cellulose acetate material.
- 15       7.     The surgical cannula according to claim 5, wherein said material is a shape memory polymer.
8.     The surgical cannula according to claim 7, wherein said shape memory alloy is nitinol.
- 20       9.     The surgical cannula according to claim 1, further including surgical tools.
10.    The surgical cannula according to claim 9, wherein said surgical tools are selected from the group consisting essentially of an aspirator, an irrigator, distractors, shims, chisels, distractor-cutters, implant holder, reamers, drills, curettes, endoscopes, and other visualizing means.
- 25       11.    The surgical cannula according to claim 1, further including a coating on an exterior surface of said cannula.
12.    The surgical cannula according to claim 11, wherein said coating is an coating capable of modifying tissue reactivity.
- 30       13.    The surgical cannula according to claim 12, wherein said coating is an immunosuppressive coating.

14. The surgical cannula according to claim 13, wherein said immunosuppressive coating is selected from the group consisting essentially of immunoprotective cells, stem cells, stem cell by-products, TOR inhibitors, corticosteroids, cyclosporins, ascomycins, antimetabolites, alkylating agents, 5 folic-acid antagonists, PKC inhibitors, and glutamate receptor inhibitors.

15. A method of forming a surgical cannula by inserting a floating surgical cannula at a location in need of surgery.

16. The method according to claim 15, wherein said inserting step includes forming a small opening at the location in need of surgery, inserting a 10 contracted floating surgical cannula at the location, and expanding the surgical cannula to a size sufficient for surgery.

17. The method according to claim 15, wherein said inserting step includes expanding the surgical cannula using a heating mechanism.

18. A device for use in surgical and non-surgical procedures, said 15 device comprising a floating cannula.

19. The device according to claim 18, wherein said surgical cannula is expandable.

20. The device according to claim 19, wherein said surgical cannula can expand to 20mm.

21. The device according to claim 18, wherein said surgical cannula is disposable.

22. The device according to claim 18, wherein said surgical cannula is made of expandable material having memory.

23. The device according to claim 22, wherein said material is 25 cellulose acetate material.

24. The device according to claim 22, wherein said material is a shape memory polymer.

25. The device according to claim 24, wherein said shape memory alloy is nitinol.

30. The device according to claim 18, further including surgical tools.

27. The device according to claim 18, wherein said device can be used for procedures selected from the group consisting essentially of neurological procedures, spinal procedures, and gynecological procedures.

28. The device according to claim 27, wherein said neurological procedure is selected from the group consisting essentially of intracranial procedures, supratentorial tumor resection, evacuation of spontaneous intracranial hemorrhages, ablative epilepsy surgery, treatment of intracerebral abscesses, and aneurysm clipping.

29. The device according to claim 27, wherein said spinal procedure is selected from the group consisting essentially of laminotomy, laminectomy, foramenotomy, facetectomy and discectomy, using posterior, postero-lateral, and lateral approach to the disc space.

30. The device according to claim 27, wherein said gynecological procedure is selected from the group consisting essentially of laparoscopy, hysteroscopy, dilatation and curettage, surgical abortion, and non-surgical gynecological procedures.